Van die Redaksie/Editorial

Health funding — the writing on the wall

A personal view

The disparity between available health services relative to demands for health care and the maldistribution of medical resources in South Africa have been repeatedly described. My concern with this issue began in 1980. In my inaugural address I made a plea for the integration of health services and the development of health care teams in order to improve community health services without losing sight of the central role of academic teaching hospitals in the overall health service.[1]

The potential impact of the progressive reduction of public resources allocated to health care was discussed in 1983. The effects of this policy on academic medicine and an adequate health service in the future was reiterated.[2] The need for a 'critical mass of personnel and facilities' as the basis for a medical school and teaching hospital was emphasised and the point made that minor financial savings could seriously jeopardise the development and maintenance of vital teaching-hospital functions.

The escalation of clinical workload out of proportion to development of facilities in one university department of medicine was reported in some detail in support of these claims in 1985.[3]

The unwillingness and inability of the state to devote greater resources to health has been coupled with repeated requests from them for motivations for expenditure on teaching hospitals and, more recently, for cutbacks of up to 25%! Careful analysis of expenditure at Groote Schuur Hospital has revealed that over the last 10 years there has been no increase in funding in real terms for everyday activities. Despite this, it has been possible to maintain academic productivity, to introduce new techniques and treatments as these have been developed, to acquire expected expertise in their use and to plan and commission a new hospital on site. The challenge to administrators to provide evidence for a more cost-effective teaching hospital than the University of Cape Town/Groote Schuur Hospital complex has not been answered (and I use the UCT/GSH complex as an example only because of my knowledge of its activities). Indeed, the report of the Commission of Inquiry into Health Services (Browne Commission) stated that in respect of hospital services the standard of hospitalisation offered at 'a very reasonable cost in the public sector' was 'impressive'.[4]

Total funding of health services in South Africa (public and private combined) has remained at close to 5% of the GNP for the last 10 years.[5] It is against this background of fully stretched and inadequately funded health services throughout the country that a re-proposal for a comprehensive, integrated, co-ordinated national health service based on respect for human dignity in the context of enlightened social and political development was advanced as a necessary condition for peaceful progress.[6,7] Since the advantages and disadvantages of privatisation versus a national health service/insurance were discussed and debated at a University of Cape Town Faculty of Medicine conference in 1985,[8] considerable debate has been waged on this issue in the columns of the *South African Medical Journal*.

None of this is new. In 1931 Dr F. A. Napier set out the advantages of a state medical service in his presidential address to the MASA. These views were reiterated in the 1944 report of the National Health Services Commission[9] and have been extensively debated in several major symposia.[10–15]

Despite all the recommendations made over so many decades, the inexorable trend in South Africa has been towards fragmentation and privatisation — especially recently. Naylor's critique of the arguments for privatisation[16,17] has been supported by many, including the College of Medicine of South Africa in its recent document on the future of academic medicine and health services in South Africa.[18]

Although an adequate standard of health is an essential prerequisite for both education and social harmony, health services are losing ground in terms of resource allocation; priority is being given to defence, police and cumbersome constitutional structures, such as homeland administrations and the tricameral system. Failure to heed these concerns is now leading to long-predicted adverse manifestations being felt more widely and to progressive damage to our health services.

Medical aid subscriptions in the private sector have escalated more rapidly than inflation and medical services are increasingly being abused by both the medical profession and patients. Many new private hospitals are being built and these are draining medical, nursing and technological staff from teaching hospitals. Funds for teaching hospitals are being reduced so that the increased demands have to be met with the same resources. Concomitantly, fees for patients at provincial hospitals are being progressively increased; they may treble in the near future. The new salary scales for full-time academic practitioners ensure adequate promotion in terms of rank and salary until 4 years after registering as a specialist. Subsequently there are virtually no further promotion opportunities in financial terms for a further 10 - 15 years and even then only for those who, during this time, become full professors. This salary structure seems to be designed to ensure movement of aspirant academics out of teaching hospitals into private practice or alternatively into academic careers in other parts of the world.

The scenario for the future, if these trends are not reversed, is for teaching hospitals to become large centres for the treatment of the old, the infirm and the indigent by relatively junior medical staff who have little time or

inclination for academic activities and who have to use predominantly old and outdated equipment. The workload will be heavy and teaching will lose the lustre that has characterised our medical schools over many decades.

Our teaching hospitals are a national asset (once lost the replacement cost would be unthinkable) serving all population groups. One fears that the 'high water mark' is past and that we now face irreversible decline.

Some university departments are on the verge of collapse and others are endangered.[19] The proposed national programme for promoting primary health care[20] will deliver more not less patients requiring tertiary care, consequent to better access to referral systems. The public (who finance the system via taxes) and the medical profession should be made aware of these serious threats to our health services and unite in their efforts to: (*i*) make optimum use of existing facilities and meet internationally recognised ethical standards by abolishing discrimination; and (*ii*) influence the decision-makers for a commitment and appropriate planning measures to meet the needs of individuals and society more adequately.

The moral, economic, social and political reasons for advocating a unitary national health service/insurance were presented at the recent MASA conference[21] and will, it is hoped, add to enlightened further debate.

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Acute intermittent porphyria — an underdiagnosed cause of abdominal pain

The need to consider non-surgical and metabolic causes when assessing patients with unexplained abdominal pain has been underscored by the histories of two young women seen recently at Groote Schuur Hospital. The first is a 28-year-old woman, the product of an affluent English-speaking family; the second, a 35-year-old Xhosa-speaking woman from the rural Transkei.

These two young women, at opposite ends of the South African social spectrum, are distinguished by colour, class and education yet they have two things in common: both suffer from acute intermittent porphyria (AIP), and both have suffered unnecessarily because of a failure to make a diagnosis when they first presented to their doctors. The first patient was repeatedly admitted to an academic hospital complaining of abdominal pain severe enough to require opiates for its relief, nausea and vomiting. This recurred monthly at the time of her menses. Eventually the pain was ascribed to 'stress' and she was referred to a psychiatrist. Only after 6 months was porphyria, aggravated by the hormonal fluctuations of her menstrual cycle, considered as a possible cause and AIP was then confirmed. The second woman was admitted to a hospital in a country town with severe abdominal cramps, vomiting and the passage of red urine. No cause was found and she was discharged after a week. A fortnight later, now quadriplegic, she was admitted to Groote Schuur Hospital. There AIP was diagnosed. A neglected acute attack had progressed to a typical porphyric motor neuropathy. She now faces a long period of rehabilitation.

The problem in both cases arose *not* because the condition is difficult to diagnose, but simply because it was *not even considered*. Indeed, the diagnosis could have been made in 5 minutes by the Watson-Schwartz test,[1] using Ehrlich's aldehyde, which requires neither special equipment nor expertise. A positive result denotes the presence of porphobilinogen (PBG) in urine and is characteristic of the acute attack of AIP, and often of AIP in remission as well. Elevated concentrations of PBG may persist in remission because PBG is the precursor immediately proximal to PBG deaminase, the defective enzyme in this condition. A positive Watson-Schwartz test for PBG is also diagnostic of the acute attack of variegate porphyria (VP) and hereditary coproporphyria, the only other porphyrias in which acute abdominal pain may be encountered.

This test comprises the addition of 1 ml Ehrlich's aldehyde to 1 ml fresh urine (Ehrlich's aldehyde: 2 g 4-dimethylaminobenzaldehyde made up to 100 ml in 6M hydrochloric acid). A pink/red colour, which appears either immediately or on standing away from direct light for 10 minutes, denotes the presence of urobilinogen or PBG. Urobilinogen is of no significance in the diagnosis of porphyria whereas the presence of PBG constitutes strong evidence of an acute attack of porphyria in a person with suggestive symptoms. Addition of 2 ml chloroform will distinguish the two. Urobilinogen is soluble in chloroform and will extract into the lower layer, taking the pink colour with it. PBG will remain in the upper or aqueous phase, hence the pink colour will remain in the upper layer.

Although most patients with acute porphyria in South Africa will have VP, an ever-increasing number of families with AIP are being discovered. This condition, unlike VP which was introduced by a single Dutch settler and is now found almost exclusively in white and coloured families, has respect for neither ethnic nor national boundaries. AIP occurs in all races and we have diagnosed the condition in people of both African and European stock. The earlier name 'Swedish porphyria' is grossly misleading. We believe that a substantial pool of undiagnosed AIP exists in our country. Research into the genetic nature of the defect[2] has shown that it is heterogeneous and suggests that the condition has arisen in unrelated families by different mutations. A large European study[3] has described four classes of PBG deaminase expression in affected families. Two of these show a deficiency of cross-reacting immunological material (CRIM-negative) with a reduction in enzyme activity, suggesting failure of expression of one allele in these patients, while two demonstrate normal amounts of immunological material (CRIM-positive), indicating a structural mutation leading to production of an altered enzyme. We believe that such a unique defect has arisen *de novo* in our indigenous population.

Hence one should never be deterred from the diagnosis by the patient's racial origins, by the absence of skin lesions (as these are never encountered in AIP), or by the absence of a family history. Neither of our two patients had any awareness of the entity of porphyria. Screening of the first patient's family led to the diagnosis of AIP in a brother — a medical student, who had also suffered bouts of abdominal pain which had been ascribed to examination stress. A search for affected members is in progress in the second family.

We suggest that there is little excuse for neglecting to exclude porphyria in anyone who presents to a doctor with unexplained abdominal pain or neuropathy, particularly in our country with its high incidence of porphyria. The Watson-Schwartz test will in most instances yield a positive result in the patient suffering an acute attack of either AIP or VP and should always be performed. For further confirmation and where a suspicion of porphyria exists in the absence of a positive test, such as in a possible case of VP examined between acute attacks, stool, urine and plasma specimens should be submitted to a laboratory capable of performing thin-layer chromatography or high-performance liquid chromatography. Adequate assessment necessitates the extraction, separation, quantitation and analysis of all porphyrin species present. This may permit an exact diagnosis to be made and is also useful in assessing disease activity. Such knowledge is indispensable to the management of any patient with porphyria, since the various types have different clinical implications.

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Bottled danger

The correspondence columns of this issue of the *SAMJ* (p. 75) carry a letter warning about the possible hazards of a useful multi-electrolyte powder that is colourless when reconstituted.[1] The authors feel that colourless solutions can be mistaken for other fluids, and make the helpful suggestion that the manufacturers should be asked to add a colouring agent, which they are apparently considering.

However, the point at issue would seem to be the easy availability in general and hardware stores of noxious fluids that are dispensed from bulk stocks into bottles that originally contained other, often potable, fluids. In many cases, little attempt is made to remove or modify the original label or to state clearly what the bottle now contains.

Three common fluids dispensed in this way are paraffin (kerosene), mineral turpentine and thinners which are frequently labelled 'P', 'T' or 'Th' respectively. All of these fluids can be easily fatal when ingested by small children, and it is iniquitous that a sloppy and dangerous practice such as this has been allowed to continue for so long.

It should be made illegal for any potentially poisonous or inflammable liquid to be dispensed into any container other than one that clearly describes its contents, and which carries appropriate warnings about its toxicity or flammability. This, and not simply the addition of a colouring agent to a paediatric rehydration solution, would appear to be the real answer to the problem.

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